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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Paul Umbeck	Date: March 5, 1992
Serial No.: 07/575,035	Group Art Unit: 1804
Filed: August 30, 1990	Examiner: D. Fox
For: GENETIC ENGINEERING OF COTTON PLANTS AND LINES	File No.: 1122990253

SUPPLEMENTAL CITATION OF INFORMATION

Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Dear Sir:

The applicant of the above-identified patent application wishes to bring to the attention of the Examiner in charge of this application two additional publications which were not previously cited in the file of either this, or the parent patent application. The documents, and another, are listed on PTO Form 1449 enclosed herewith, and single copies are enclosed.

The first two of these documents were cited to the undersigned for the first time on Wednesday, February 26, 1992, in the course of discussions between the assignee of the present invention and a potential licensee who, for purposes of negotiation, sought to challenge the patent rights being obtained by the applicant here. These documents are cited to the Examiner in the interests of complete candor.

The Shah, et al. patent is cited because of the passage which occurs on the bottom of Column 19, and the top of Column 20, of the patent specification. That passage describes the transformation in culture of cotton cells, and attempts to make those cotton cells resistant to herbicide. No transgenic cotton plants are reported or described in that patent.

The paper to Roy, et al. was cited to the undersigned insofar as it supports the work published by Zhou, et al. "Introduction of exogenous DNA into cotton embryos," Methods in Enzymology, Vol. 101:433-481 (1983). A copy of the Zhou paper, cited in the file of the parent application, is also enclosed herewith for the Examiner's reference. The Zhou paper purports to teach that genes can be introduced into cotton by direct DNA injection into the ovaries of flowers during the process of fertilization. The applicant noted in the file history of the parent application that the Zhou report relies totally on morphological changes to detect cotton transformation, and the Zhou paper contains no biochemical data from which one can verify that any transformation of any of the plants in question took place. It has now been argued by others that the Roy paper supports the hypothesis that Zhou enables cotton transformation. It may be seen that in the Roy paper, the Zhou method is used to allegedly transform cotton plants. No Southern blots or analysis of genetic sequence is used to verify that the foreign genes have been inserted in the cotton plants, but an assay of NPTII

expression is provided to allegedly show transgenic cotton leaves.

The applicant asserts that there is still no solid scientific basis to believe that the method of Zhou, even in view of what is reported by Roy, et al., enables making transgenic cotton plants. The assignee of the present invention, for one, tried extremely hard to replicate the method of Zhou without success. The disclosure of Roy does not demonstrate genetic integration of the inserted DNA into the cotton plants, and also does not demonstrate that the allegedly transgenic plants were capable of passing on the inserted genetic material into progeny produced from that plant. As such, the report cannot be considered conclusive, and does not demonstrate that the Zhou method works to enable creation of transgenic cotton.

Wherefore, the Examiner is respectfully requested to consider these references during the remaining examination of this application.

Respectfully submitted,

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